

AD-A074 404

NAVY ELECTRONICS LAB SAN DIEGO CA  
CALIBRATION DATA ON SONAR DOME PAINTS. (U)  
JAN 63

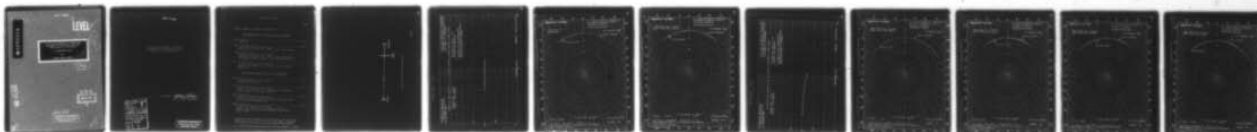
F/G 17/1

UNCLASSIFIED

NL

| OF |

AD  
A074404



END  
DATE  
FILMED  
10-79  
DDC



U.S. NAVY ELECTRONICS LABORATORY  
Transducer Calibration Facility  
San Diego 52, California

CALIBRATION DATA  
on  
SONAR DOME PAINTS

11 Jan 63

12 42p.

DDC  
RECEIVED  
SEP 26 1973  
A

253 550

DISTRIBUTION STATEMENT A

Approved for public release  
Distribution Unlimited

MOST Project

U.S. NAVY ELECTRONICS LABORATORY  
Transducer Calibration Facility  
San Diego 52, California

Approved:

*Delores A. Pierce*  
Miss Delores A. Pierce  
Head - Data Reduction

Accession For	
NTIS GRA&I	<input checked="checked" type="checkbox"/>
DDC TAB	<input type="checkbox"/>
Unannounced	<input type="checkbox"/>
Justification	
<i>Still on file</i>	
Distribution/	
Availability Codes	
Dist.	Avail and/or special
A	

**DISTRIBUTION STATEMENT A**  
Approved for public release  
Distribution Unlimited

# TABLE of CONTENTS

	Page
Diagram showing Mounting Arrangement. . . . .	1
<u>TYPE 304 CRES TEST PANELS (5' x 4' x 0.05")</u>	
Test Panel No. 1. . . . . Uncoated	2 - 3
Test Panel No. 2. . . . . Sonar Dome Paints 13 mils thick: Formulas 117*, 120*, 119*, 120*, 119*, 121* and 121	2 & 4
Test Panel No. 3. . . . . Sonar Dome Paints 12 mils thick: Formulas 117*, 120*, 119*, 120*, 119*, X10726-58-2 (Chlorinated Rubber Primer), and 2 coats No. 134X-50	2
Test Panel No. 4. . . . . Sonar Dome Paints 15 mils thick: Formula 117, Devran 201, 204 and 209, and 2 coats Formula 121	2
<u>HY-80 STEEL TEST PANELS (5' x 5' x 0.25")</u>	
Test Panel No. 5. . . . . Sonar Dome Paints 2 mils thick: Formulas 117 and 119	5 - 6
Test Panel No. 6. . . . . Sonar Dome Paints 14 mils thick: Formula 117, 4 coats 119, X10726-58-2 (Chlorinated Rubber Primer), and 2 coats 134X-50	5 & 7
Test Panel No. 7. . . . . Sonar Dome Paints 11 mils thick: Formula 117, 2 coats each of Laminar 4G14, 4X41 and 4W1, and 2 coats Formula 121	5 & 8
Test Panel No. 8. . . . . Sonar Dome Paints 28 mils thick: Formula 117, Gaco N-12, 10 coats Gaco N-29, Formula 133, 2 coats 134X-50 (Front) and 2 coats 134 (Back)**	5 & 9

\* Indicates forced drying of the particular coat of paint with hot air at 120° F ± 10° F for one hour. Otherwise all coatings air dried at ambient indoor temperatures.

\*\* All panels coated similarly front and back except as noted.



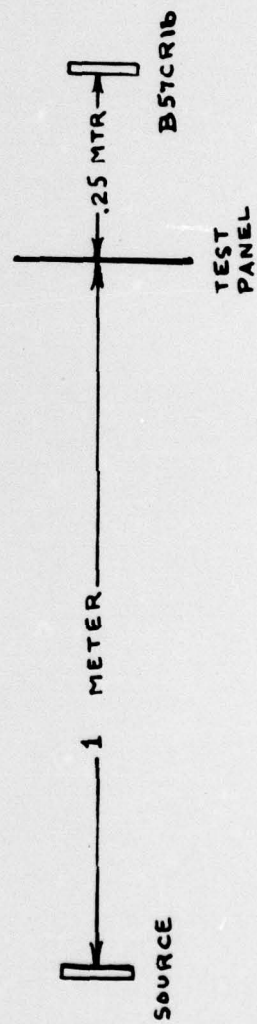


DIAGRAM OF MOUNTING ARRANGEMENT

D3769

Measured at Sweetwater  
Calibration Station  
19 December 1962

EFFECT OF TEST PANELS No. 1, 2, 3 and 4 (COATED and UNCOATED)\* on SOUND FIELD

Temperature: 13.3°C  
Depth: 3.90 meters

See Diagram, Page 1, for  
mounting arrangement.

\* As there was no measureable  
difference between these panels  
they are shown as 1 curve.

U.S. NAVY ELECTRONICS LABORATORY  
Transducer Calibration Facility  
San Diego 52, California

Frequency in Kc

U3769-2 R11,12,15 & 16

10

100

2

db

10

0

-10

1



# DIRECTIVITY PATTERN

U. S. NAVY ELECTRONICS LABORATORY  
TRANSDUCER CALIBRATION FACILITY  
SAN DIEGO, CALIFORNIA  
Sweetwater Station

Test Panel No. 1  
(UNCOATED)

19 December 1962

Panel Removed

With Panel

Frequency 14 Kc

0° is normal to Panel  
Rotate

Depth 3.00 meters

Test Distance 1.25 meters

Temperature 13.3 C

D3789-2 A13

\* See Diagram, Page 1, for mounting arrangement.

Scale 1 db per radial division



# DIRECTIVITY PATTERN

U. S. NAVY ELECTRONICS LABORATORY  
TRANSDUCER CALIBRATION FACILITY  
SAN DIEGO, CALIFORNIA  
Sweetwater Station

Test Panel No. 2 coated  
with SONAR DOME PAINTS

19 December 1962

Panel Removed

With Panel\*

Frequency

14 Kc

0° is normal to Panel  
Rotate

Depth 3.90 meters

Test Distance 1.25 meters

Temperature 13.3 °C

03769-2 R10

\* See Diagram, Page 1, for mounting arrangement.

Scale 1 db per radial division

11ND-N 100/22 (4-61) 160°  
210° 200°

170°  
190°

180°  
180°

190°  
170°

200°  
160°

210°  
150°

4





CODER BOOK COMPANY, INC. NORWOOD, MASSACHUSETTS. PRINTED IN U.S.A.

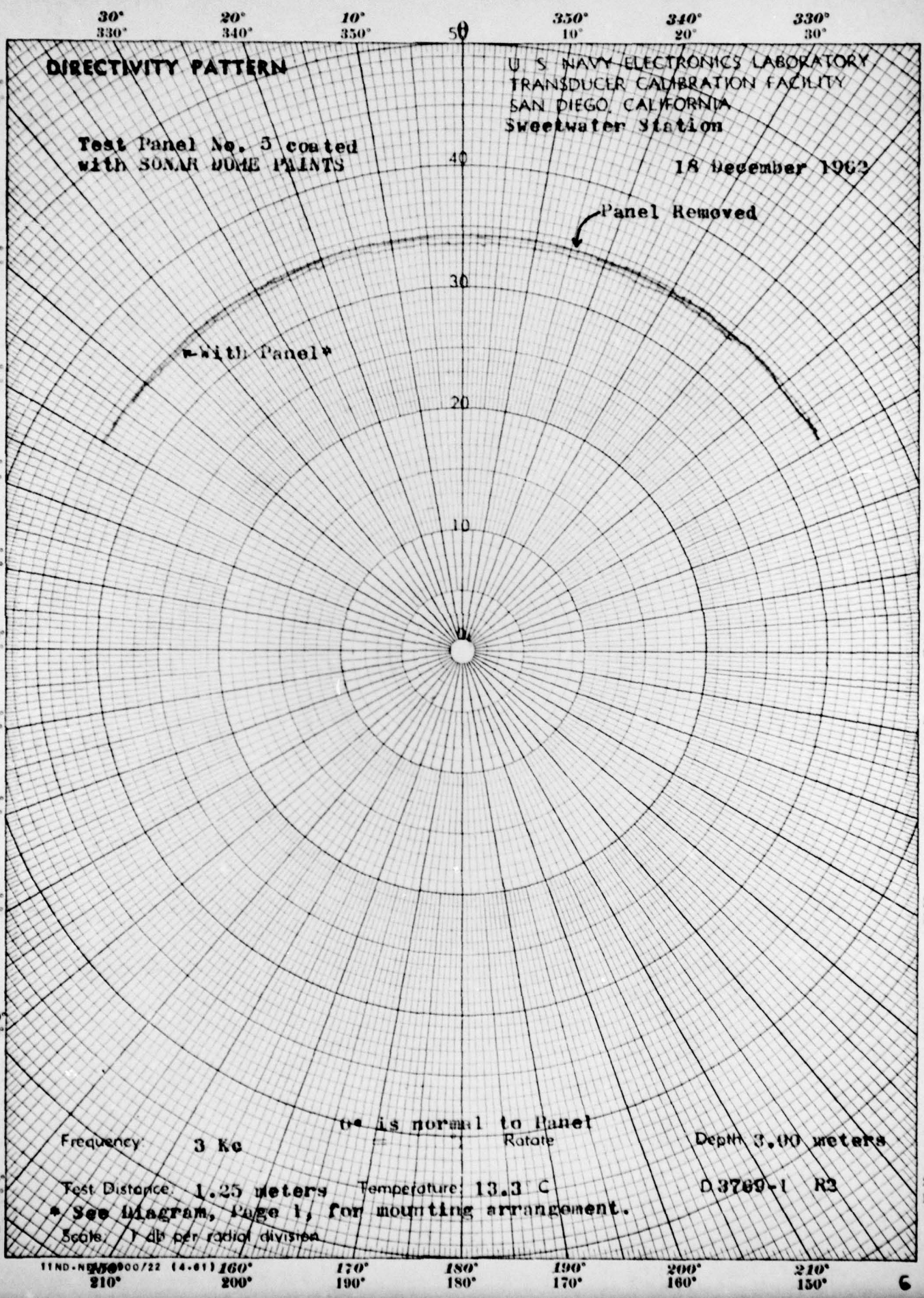
NO. 3124. POLAR CO-ORDINATE.

PANEL # 5

340

2

3769





30° 20° 10° 50 350° 340° 330°  
 330° 340° 350° 10° 20° 30°

# DIRECTIVITY PATTERN

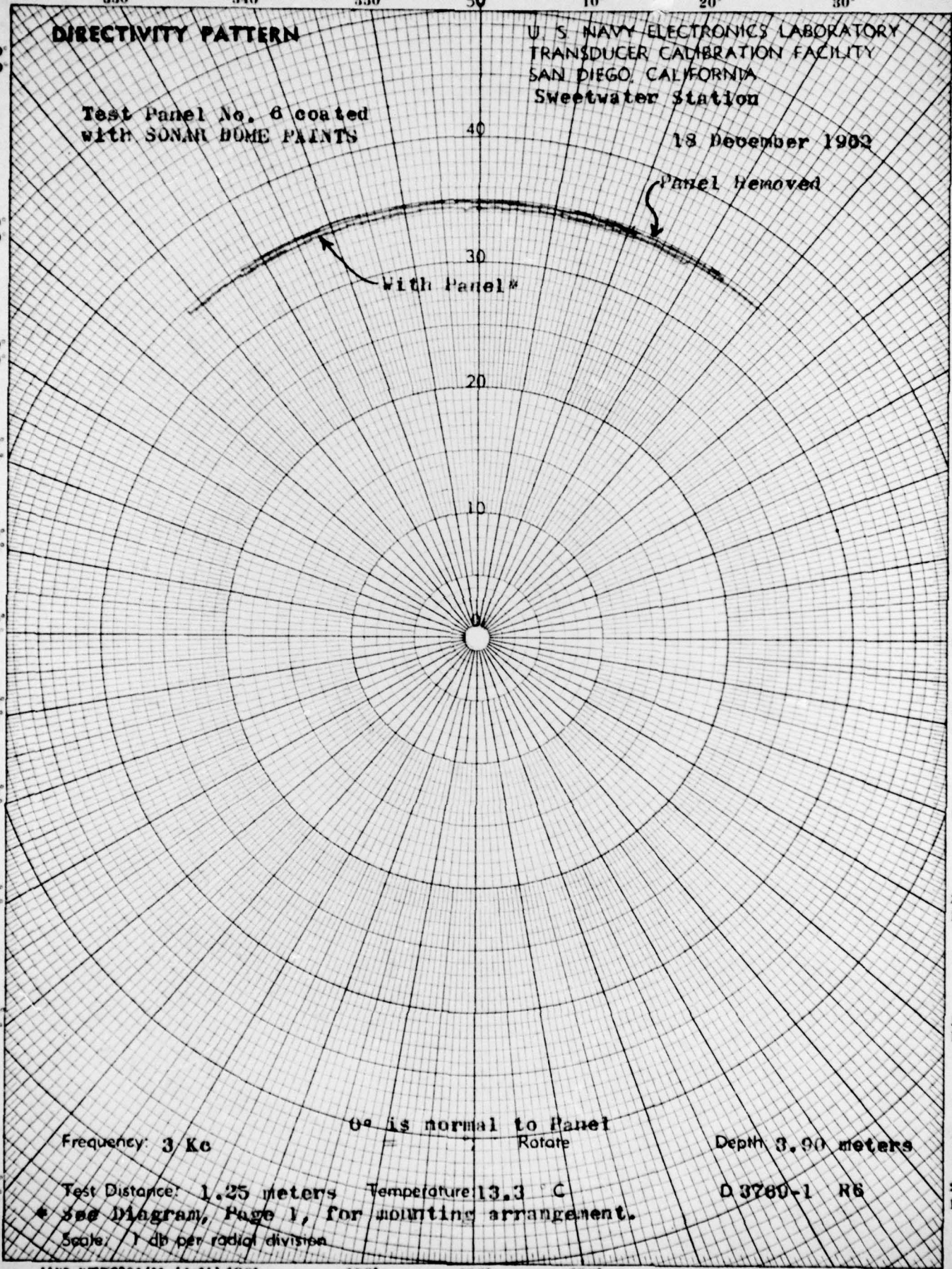
U. S. NAVY ELECTRONICS LABORATORY  
 TRANSDUCER CALIBRATION FACILITY  
 SAN DIEGO, CALIFORNIA  
 Sweetwater Station

Test Panel No. 8 coated  
 with SONAR DOME PAINTS

18 December 1962

Panel removed

With Panel



Frequency: 3 Kc

0° is normal to Panel  
 Rotate

Depth 3.90 meters

Test Distance: 1.25 meters Temperature 13.3 °C

D 3780-1 R6

\* See Diagram, Page 1, for mounting arrangement.

Scale: 1 db per radial division

11ND-NR 0000/22 (4-61) 160° 170° 180° 190° 200° 210°  
 210° 200° 190° 180° 170° 160°

CODING BOOK COMPANY, INC. NORWOOD, MASSACHUSETTS.  
 PRINTED IN U.S.A.

NO. 3124 POLAR CO-ORDINATE

30°  
330°

20°  
340°

10°  
350°

350°  
10°

340°  
20°

330°  
30°

# DIRECTIVITY PATTERN

U. S. NAVY ELECTRONICS LABORATORY  
TRANSDUCER CALIBRATION FACILITY  
SAN DIEGO, CALIFORNIA  
Sweetwater Station

Test Panel No. 7 coated  
with SONAR DOME PAINTS

18 December 1962

Panel Removed

With Panel\*

Frequency 3 Kc

0° is normal to Panel  
Katate

Depth 3.90 meters

Test Distance 1.25 meters Temperature 13.3 °C

D 3769-1 R7

\* See Diagram, Page 1, for mounting arrangement.

Scale 1 db per radial division

11ND-N 00/22 (4-81) 150° 160° 170° 180° 190° 200° 210°  
210° 200° 190° 180° 170° 160° 150°



PANEL 78

CODER BOOK COMPANY, INC. NORWOOD, MASSACHUSETTS. PRINTED IN U.S.A.

NO. 3124 POLAR CO-ORDINATE

3769

